Salt Lake City Violent Crime Reduction Plan: Year 2 Evaluation

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Table of Contents

TABLE OF CONTENTS	II
EXECUTIVE SUMMARY	IV
CITY-WIDE RESULTS	IV
HOT SPOT RESULTS	IV
ARRESTS & CALLS FOR SERVICE	V
OVERVIEW	1
METHODOLOGY	2
CITY-WIDE ANALYSES	3
VIOLENT CRIME INCIDENTS: CITY-WIDE	3
VIOLENT CRIME OFFENSES: CITY-WIDE	6
VIOLENT CRIME BY DIVISION	7
PHASE 1: HOT SPOTS POLICING	8
Crime	8
Arrests	12
CALLS FOR SERVICE	14
FIDELITY	15
CONCLUSION	16
REFERENCES	18
APPENDIX A: VIOLENT STREET CRIME COUNTS BY YEAR	19

Figures

Executive Summary

Beginning in late September 2022, the Salt Lake City Police Department (SLCPD) began executing a three-part strategic plan to reduce violent crime (hereafter referred to as the "Crime Plan"). As of September 2024, the first phase of the plan (hot spots policing) has been operational across the city for two years, and the SLCPD. The Crime Plan includes a short-term hot spots policing strategy, a mid-term problem-oriented, place-based policing (POPBP) strategy, and a longer-term focused deterrence strategy, which has not yet begun. The POPBP strategy was modified in Year 2 by the SLCPD as part of a Downtown Safety Initiative (DSI) to address crime, disorder, and homelessness in selected areas of the city. An evaluation of that initiative is reported separately.

This document serves as the Year 2 report on the results of the Salt Lake City Crime Plan. It summarizes the methodology and results of an independent, empirical assessment of the implementation and impact of the Crime Plan from its inception in late September 2022, with a particular focus on Year 2 – October 2023 through September 2024.

Potential hot spot treatment locations are evaluated every 60 days based on reported violent street crime (murder, robbery, and aggravated assault) and include an assessment of crime in 1,000 foot catchment areas surrounding each hot spot to evaluate potential crime displacement effects. Police hot spot treatment involved the deployment of stationary, lighted patrol cars to high crime hundred blocks for 15-minute periods during peak crime hours and peak crime days of the week. Hot spots were reassessed, and police resources redistributed every 60 days based on reported crime.

City-Wide Results

Overall, the Salt Lake City experienced a 4.7% increase in violent street crime incidents during Year 2 of the Crime Plan (October 2023-September 2024) compared to the same 12 months the previous year. Compared to last year, murder was down 31.3%, individual robberies increased by 1.8%, business robberies increased by 7.8%, and aggravated assault increased by 5.4%. Since the inception of the Crime Plan in late September 2022, violent crime in Salt Lake City is down 13.3% but remains elevated compared to pre-Covid (2020) levels.

Hot Spot Results

City-wide, violent crime in treated hot spots increased about 14% in Year 2 compared to the same months in the previous year, and it increased (19.9%) in surrounding catchment areas. At the police division level, Central experienced reductions in violent crime incidents between October 2023 and September 2024 when compared to last year, but violent crime was higher in Pioneer and Liberty compared to last year. Since the beginning of the Crime Plan, SLCPD officers

were present at their assigned hot spots in accordance with treatment plans an average of over 97% of the time in Year 1 and 89% of the time in Year 2, which indicates a high degree of fidelity to hot spot treatment goals.

Arrests & Calls for Service

Total arrests were up 8.2% city-wide in Year 2 over the previous year but were 15.1% *lower* for violent crime consistent with lower levels of violence in Salt Lake since inception of the Crime Plan. Broken down by other arrest types, minor disorder arrests were 14.7% higher in Year 2 compared to last year, and drug arrests increased by more than 37%. Gun-related arrests were virtually unchanged over last year. In Year 2, all calls for service were 1.4% higher city-wide and in treated hot spots compared to the previous year. Violence-related calls for service were up 1.5% city-wide in Year 2 and up 10.6% in treated hot spots.

Overview

Beginning in late September 2022, the Salt Lake City Police Department began executing a three-part strategic plan to reduce violent crime¹ (hereafter referred to as the "Crime Plan"). The Crime Plan includes a short-term hot spots policing strategy, a mid-term POPBP strategy, and a longer-term focused deterrence strategy. These three strategies were purposely designed to work together to help reduce violent crime in Salt Lake City by focusing on the relatively few places where violent crime is prevalent and the relatively few individuals responsible for committing it. As of September 2024, the first phase of the plan – hot spots policing – has been fully implemented for two years.

The second phase (POPBP) of the Crime Plan was modified by the SLCPD to address homelessness and related problems in three areas of the city: along the Jordan River Trail near its intersection with W. North Temple, Liberty Park, and in the downtown area. Collectively, the SLCPD refers to this initiative as the Downtown Safety Initiative (DSI), and it has been operating in the various locations since October 2023. UTSA has been asked to evaluate the impact of the DSI as part of its engagement with the SLCPD and will do so in a separate report.

This document serves as the Year 2 report on the results of the Salt Lake City Crime Plan to date. It summarizes the methodology and results of an independent, empirical assessment of the implementation and impact of the Crime Plan since its inception (October 2022-September 2024) and during Year 2 (October 2023-September 2024). As of September 2024, the short-term hot spots policing strategy has been fully implemented across 12 treatment periods, each period lasting approximately 60 days.²

The report that follows is organized into several main sections. Following this Overview, we outline our Methodology, including the data we relied upon for this report and our analytic strategies. The City-Wide section examines overall city-wide trends in violent crime and offenses since the Crime Plan began and within the past year. The Phase 1 Hot Spots Policing section summarizes analyses of violent crime, arrests, and calls for service city-wide and in the treated hot spots. In this section, we also analyze hot spot treatment fidelity or the degree to which officers were present at designated hot spots in accordance with the treatment plans. Finally, we wrap up the report with a Conclusion that summarizes the results of the Crime Plan during the first two years and within the past twelve months.

¹ A "violent crime" is defined as any reported *incident* involving a murder/non-negligent manslaughter, robbery, or aggravated assault (not including family violence-related aggravated assaults) with at least one victim. Incidents with multiple offenses (a murder and a robbery) or multiple victims (three individuals assaulted) were counted as a single incident for the purposes of identifying hot spots and in the analyses reported below, unless otherwise noted.

² Year 2 included Periods 7-12 beginning in October 2023 with each period lasting for two months.

Methodology

The primary period of analysis for this report is October 2023 through September 2024. City-wide analyses also are conducted over the entire two-year period to provide a global assessment of the Crime Plan's impact on violent crime incidents since the Crime Plan was instituted in late September 2022.

In Salt Lake City, violent crime is mapped to small, 100m x 100m grids, and officers are assigned to be highly visible at these locations during peak crime hours and days of the week to increase guardianship and act as a deterrent to crime. During each of the treatment periods, hot spots received a high visibility treatment, which involved placing patrol cars in selected locations with their emergency lights illuminated during peak crime times and days of the week while the officer foot patrolled in the immediate area and engaged with community members. As the SLCPD transitioned from one period to the next, some locations remained in the treatment protocol based on continued elevated levels of reported crime while new ones were added and those that were no longer 'hot' were removed.

To assess the broader context of violent crime in Salt Lake City, city-wide trends in violent crime incidents, violent crime victims, specific violent crime offenses, and violent crime incidents within divisions are analyzed and presented. The primary comparison for the Year 2 analyses is the same months in the previous time period. For example, violent crime incidents during the second year of the Crime Plan (October 2023-September 2024) are compared to the previous 12 months (October 2022-September 2023). Change is measured using a percent change between time periods.

At the local level, treatment grids and catchment³ areas were evaluated using three outcome measures: violent crime, arrests, and calls for service. Descriptive analyses of violent crime, arrests, and calls for service across the city and in treatment grids during the treatment periods were conducted and compared against the same months last year. Catchment areas surrounding each hot spot were assessed for potential crime displacement or diffusion of benefits effects. Results are shown within the treated grids, in the catchment areas surrounding the grids, city-wide, and within divisions, as described below.

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³ Catchment areas extend approximately 1,000 feet in all directions from targeted hot spots. It is here that crime displacement is most likely to occur, if at all.

City-Wide Analyses

In this section, city-wide trends in violent crime incidents, violent crime victims, specific violent crime offenses, and violent crime incidents at the division level are analyzed and presented. Again, these trends were assessed by comparing the time period of interest to the same months in the previous time period, with differences shown as a percent change.

Violent Crime Incidents: City-Wide

Figure 1 below shows the count of *violent crime incidents and victims* per month that occurred in Salt Lake City between October 1, 2020 and September 30, 2024. The dark blue vertical bar represents the start of the Crime Plan (October 2022), and the light blue vertical bar indicates the beginning of this evaluation period (October 2023).

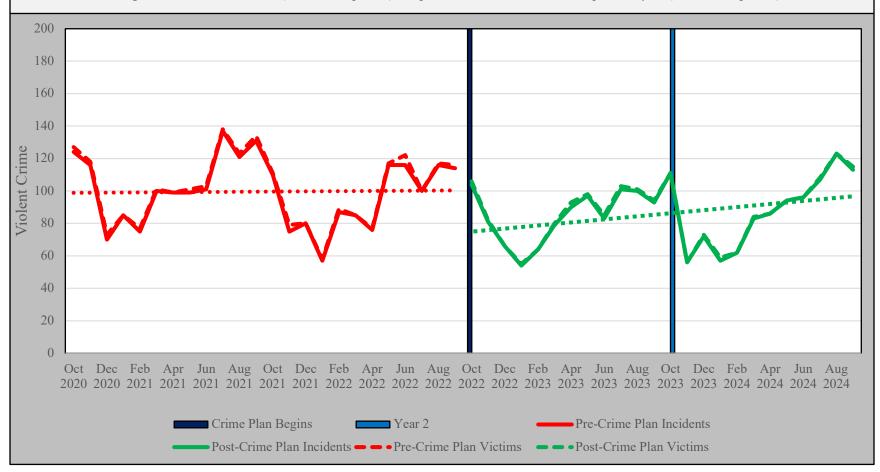
As demonstrated by the dotted red line, violent crime incidents were virtually unchanged between October 2020 and the beginning of the Crime Plan. After the Crime Plan was initiated in October 2022, the overall level of city-wide violent crime incidents noticeably dropped (see the green dotted line). Throughout the two years since the Crime Plan was initiated, **there has been a 13.3% reduction in average violent crime incidents**. Notably, throughout the past four years, seasonal variation in violent crime incidents is evident with higher rates in the summer months. Narrowing the focus to only Year 2 of the Crime Plan, city-wide violent crime incidents were 4.7% higher compared to the previous year, which is largely a product of a noticeable peak in Summer 2024. Violent crime victimization, represented by the dashed red and green lines, largely tracks violent crime incident trends. In other words, most violent crime incidents involved a single victim; therefore, in Salt Lake City the two measures are nearly identical in most months.

Figure 1: City-Wide Violent Crime Incidents & Victims Per Month, Oct 2020-Sep 2024

Salt Lake City Violent Crime Incidents & Victims Per Month: Oct 2020 - Sep 2024

Salt Lake City experienced a 13.3% decrease in average monthly violent crime *incidents* and a 13.8% decrease in average monthly violent crime *victims* since the beginning of the Crime Plan (Oct 2022-Sep 2024) compared to the same months in the previous two years (Oct 2020-Sep 2022).

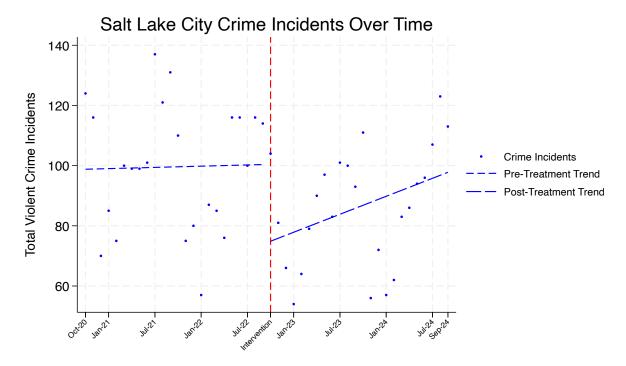
Salt Lake City experienced a 4.7% increase in average monthly violent crime *incidents* and a 3.9% increase in average monthly violent crime *victims* during Year 2 of the Crime Plan (Oct 2023-Sep 2024) compared to the same months in the previous year (Oct 2022-Sep 2023).



To better understand overall city-wide trends before and after the Crime Plan began, we also used interrupted time series analysis (ITSA) to analyze change in crime trends (see Figure 2 below). ITSA is well suited for tracking and comparing data before and after treatment over long periods of time (Cook, Campbell, & Shaddish, 2002). However, we caution that our research design is not experimental and does not allow for definitive cause-and-effect conclusions.

The ITSA model compliments our city-wide findings (above) but warrants further discussion. The results below demonstrate that there has been a net decrease of 13% in violent crime compared to the preintervention period. Based on the ITSA results, this decrease is largely driven by the crime patterns observed at the intervention point (shown a red, vertical dotted line in Figure 2) and the following months. There was a statistically significant initial reduction of 25.6 incidents per month after introduction of the Crime Plan in October 2022. Since that time, Salt Lake City has experienced strong seasonal crime effects with large decreases in the colder months and large increases in the warmer months (See Figure 2). Despite the initial city-wide reduction in violent crime that occurred after implementation of the Crime Plan, the ITSA results across the two treatment years were not statistically significant because violent crime rose by about 5% in Year 2 relative to Year 1. However, the results here and above show that overall crime remains lower than in the two years prior to the Crime Plan, and the most recent increase has not yet overcome the early impacts of the treatment.

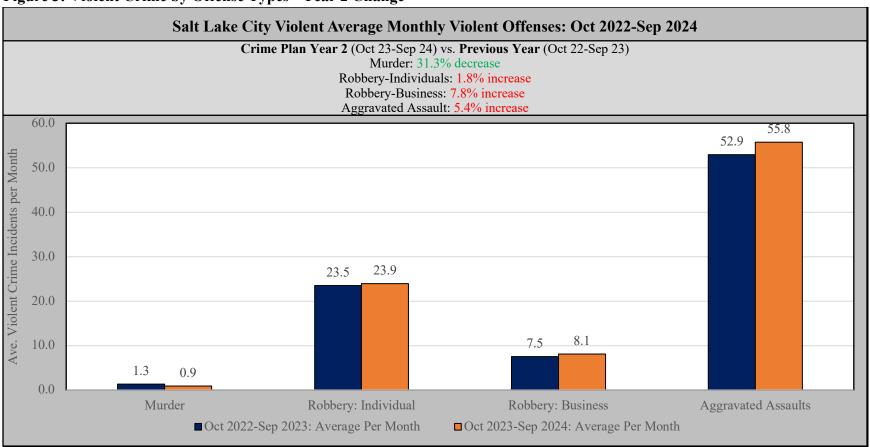
Figure 2: City-Wide Violent Crime ITSA Analysis



Violent Crime Offenses: City-Wide

Figure 3 below shows trends in violent offenses by offense type for the past 24 months, with dark blue vertical bars to indicate Year 1 of the Crime Plan and orange bars to indicate Year 2 of the Crime Plan (current reporting year). Compared to the previous year, average monthly incident counts for murder were down by about 31%. However, average monthly incident counts for individual robberies (1.8%), business robberies (7.8%), and aggravated assaults (5.4%) increased slightly in Year 2.

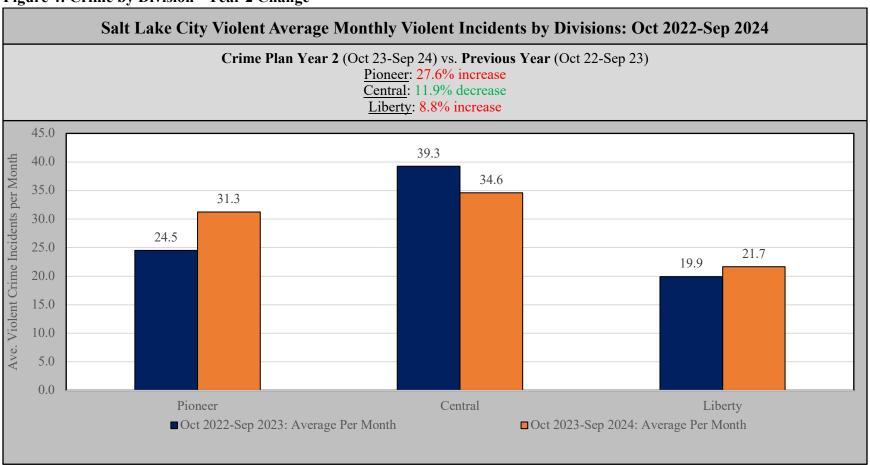
Figure 3: Violent Crime by Offense Types - Year 2 Change



Violent Crime by Division

Figure 4 below summarizes the count of violent crime incidents per month that occurred in each of Salt Lake City's three police divisions in the past 24 months. Again, the vertical bars indicate Year 1 of the Crime Plan in dark blue and Year 2 of the Crime Plan in orange. Compared to Year 1 of the Crime Plan, average monthly incident counts for violent crime incidents in Year 2 of the Crime Plan increased in the Pioneer (28%) and Liberty (9%) divisions, but decreased by 12% in the Central division.

Figure 4: Crime by Division - Year 2 Change



Phase 1: Hot Spots Policing

Crime

Figure 5 below shows the percentage change in average monthly violent crime counts city-wide, in hot spot treatment grids, and catchment grids in Year 1 of the Crime Plan (October 2022-September 2023) compared to Year 2 of the Crime Plan (October 2023-September 2024). As previously noted, city-wide violent crime increased by 4.7% in Year 2 of the Crime Plan. In treatment locations, there was a 13.9% increase in violent crime incidents and a 19.9% increase in catchment area violent crime incidents during Year 2 compared to Year 1. These increases were driven a relatively few number of hot spots in each division, most of which are included in DSI areas (e.g. 235 S. Rio Grande, Liberty Park) and which have been treated multiple times.



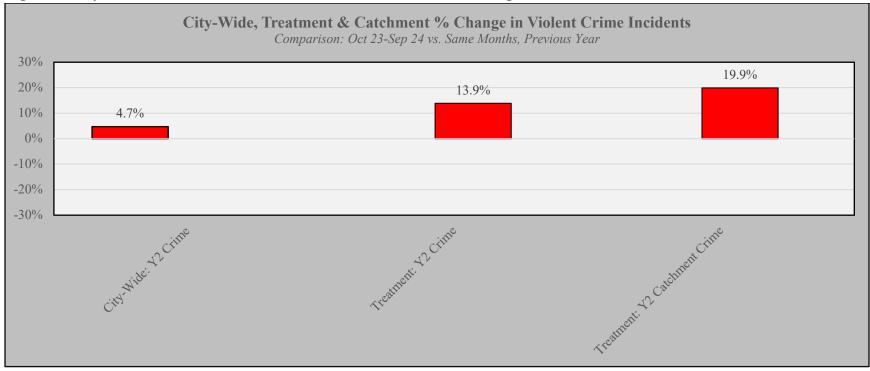
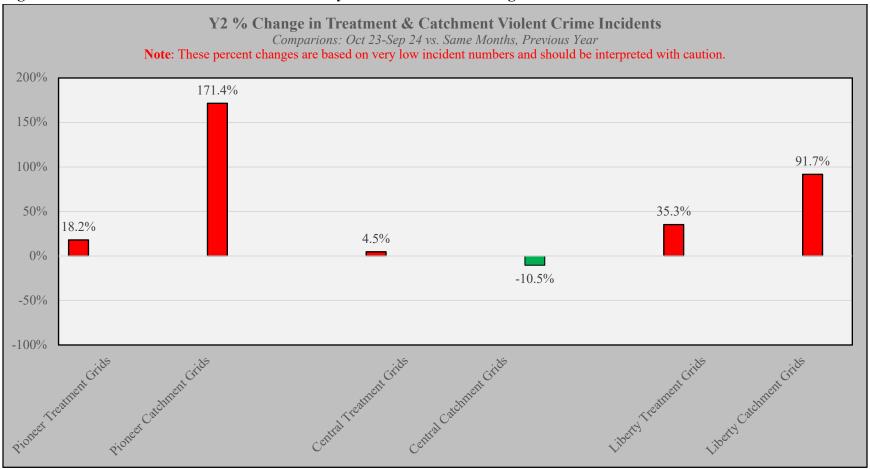


Figure 6 below provides a Year 2 comparison for divisions. The current evaluation period (October 2023-September 2024) is compared to the previous 12 months (Year 1of the Crime Plan) for the treatment and catchment areas in each division. The treatment and catchment grids of all divisions experienced an increase in violent crime incidents, except for the catchment grids in Central. Pioneer and Liberty grids experienced an uptick in violent crime incidents in their treated hot spots by 18% and 35%, respectively, and by 171% and 92% in surrounding catchment areas. Central's violent crime incidents were slightly higher in treated hot spots (5%) while violent crime incidents were lower in surrounding catchment areas (11%). Given the city-wide increase in violent crime in Year 2 over Year 1, it is not clear that crime displacement from the treated hot spots occurred. Rather, these findings are consistent with the overall rise of violent crime in the city during Year 2.

Figure 6: Treatment & Catchment Grid Crime by Division – Year 2 Change



Arrests

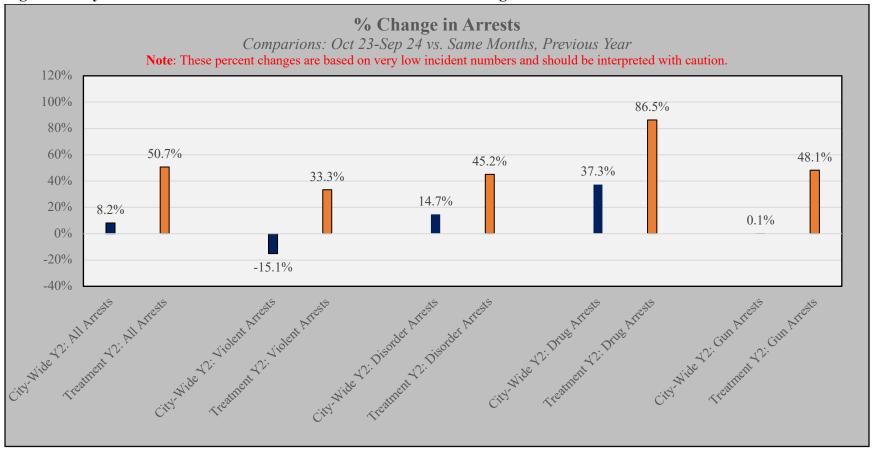
Figure 7 below displays arrest activity across the city and in treated hot spot grids. The dark blue bar indicates the Year 2 effect compared to the previous 12 months <u>city-wide</u> and the orange bar reflects the Year 2 effect compared to the previous 12 months in <u>treated hot spots</u>. The percentage change in average monthly arrest counts was calculated for all arrests, violent crime arrests⁴, disorder arrests, drug arrests, and gun arrests.

City-wide, arrests increased by 8.2% and by 50.7% in treated hot spots over the past 12 months. Violent crime arrests decreased city-wide by 15.1% in the past 12 months, while in treated hot spots, violent crime arrests increased by 33.3%. Disorder, drug, and gun arrests were all higher city-wide and in treated hot spots within the past 12 months. Increases in arrests at the treatment locations likely reflect the presence of officers at those locations as arrest is a measure of police productivity rather than a direct measure of criminal activity.

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⁴ Murder; Robbery; Non-family violence, aggravated assault.

Figure 7: City-Wide & Treatment Grid Arrests - Total and Year 2 Change



Calls For Service

Figure 8 below shows changes in the average number of all calls for service (CFS) and violence-related calls for service (V-CFS) citywide and in the hot spot treatment areas. City-wide, CFS and V-CFS increased by 1.4% and 1.5% (solid blue bars), respectively, in Year 2 of the Crime compared to the same months in the previous year. During the same period, CFS in the treated hot spots increased slightly by 1.4%, while V-CFS at these locations rose by approximately 11%.

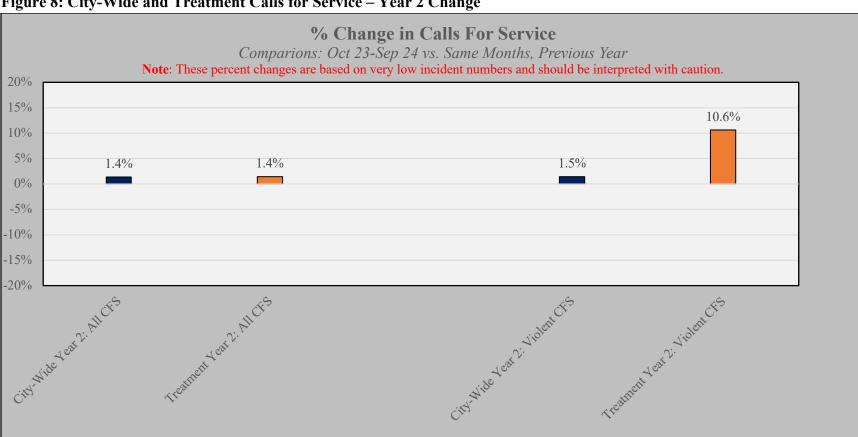


Figure 8: City-Wide and Treatment Calls for Service – Year 2 Change

Fidelity

This section of the report examines treatment plan fidelity from the inception of the Crime Plan in late September 2022 through September 2024 (Period 12). Fidelity signals the extent to which SLCPD officers were deployed to designated hot spots during the correct days and times as identified by the hot spot treatment plans. Table 1 below shows high fidelity rates in each period. In Year 1, SLCPD officers were present at 96.6% of all recommended treatment times and locations for at least 15 minutes scheduled. In Year 2, officers' presence at the designated hot spots for at least 15 minutes dropped to 89.0%. This drop in Year 2 is a product of the relatively lower fidelity rates during Period 7 (79.2%) and Period 9 (79.0%). **Overall, SLCPD officers have exhibited a high level of fidelity to the hot spot strategy as the Crime Plan moves forward.**

Table 1: Fidelity Summary

	Treatment Periods	Fidelity Rate
	Period 1	91.8%
Year 1 (Ave: 96.6%)	Period 2	96.9%
	Period 3	97.0%
	Period 4	98.2%
	Period 5	98.1%
	Period 6	97.4%
	Period 7	79.2%
	Period 8	90.2%
Year 2	Period 9	79.0%
(Ave: 89.0%)	Period 10	96.0%
	Period 11	93.6%
	Period 12	95.9%

Conclusion

The Salt Lake City Violent Crime Reduction Plan began in September 2022 and has been underway for about 24 months. This Year 2 report evaluates the implementation and impact of the Crime Plan since its inception, with particular emphasis on Year 2 – October 2023 to September 2024. The original Crime Plan consists of three primary strategies: hot spots policing; problemoriented, place-based policing (POPBP); and focused deterrence. These strategies were purposely chosen for their strong evidence base, and they were intentionally layered to help reduce violent crime in Salt Lake City over the short, mid, and longer terms. To date, hot spots policing and a SLCPD-modified version of the POPBP strategy (Downtown Safety Initiative) are underway in Salt Lake City.

Overall, Salt Lake City has experienced a 13% decline in violent street crime since the Crime Plan began two years ago, although this reduction was realized in the first year of the Crime Plan (Oct 2022 – Sep 2023). During the Year 2 evaluation period, violent street crime incidents increased by about 5% city-wide, and violent victimization increased about 4% compared to the year before. Across the two-year Crime Plan implementation period, Salt Lake City experienced a 13% reduction in violent crime after the Crime Plan began compared to the 24 months before the plan was implemented. Focusing on change during Year 2 compared to last year, murders decreased by 31%, while aggravated assaults were up slightly by about 5%. Individual robberies were nearly unchanged, and business robberies increased by 8% compared to last year.

During Year 2 of the Crime Plan, violent crime in treated hot spots was up about 14% compared to the year before, and it was up nearly 20% in surrounding catchment areas. Given the city-wide increase in violent crime in Year 2 over Year 1, it is not clear that crime displacement from the treated hot spots occurred. Rather, these findings are consistent with an overall rise in violent crime in the city during Year 2. At the police division level, the Pioneer division experienced a large increase in catchment area crime driven primarily by hot spots along W. North Temple Street near its intersection with the Jordan River Trail. The Liberty division also experienced increases in hot spot and surrounding catchment area crime over last year, and this increase was largely driven by Liberty Park and its environs

City-wide, the SLCPD made 8% more arrests in Year 2 of the Crime Plan than the year before, while hot spot-related arrests were up by more than 50%. Encouragingly, violence-related arrests were down 15% city-wide in Year 2 but up by a third in treated hot spots. Disorder and gun arrests increased city-wide compared to last year, and they were up sharply in treated hot spots (45% for disorder and 86% for drugs). Gun arrests were unchanged city-wide over last year, but they were up nearly 50% in hot spots. Calls for service (CFS) in Year 2 were up slightly city-wide and in treated hot spots compared to the year before, including violence-related CFS. Finally, hot spot

treatment fidelity, or the extent to which officers treated hot spots in accordance with 60-day treatment schedules, remained high in Year 2 of the Crime Plan at 89%.

Salt Lake City has made substantial progress in reducing violent crime over the past two years, but this past year (Oct 2023 – Sep 2024) presented challenges, particularly in the DSI areas. Additional efforts will be needed to address underlying conditions related to homelessness, addiction, and disorder in those areas that make them conducive to violent crime, such as evidence-based drug market interventions and demand reduction strategies (McGarrell, et al., 2010; National Institute of Justice, 2014; Saunders et al., 2016).

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Appendix A: Violent Street Crime Counts by Year

Violent Crime by Offense Type: 2024

	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Total
All Crime Incidents	57	62	83	86	94	96	107	123	113	821
Murder	2	0	1	1	3	0	0	1	0	8
Robbery Ind.	14	22	17	18	31	25	40	35	26	228
Robbery Bus.	8	6	8	9	7	7	4	8	16	73
Agg. Assault	34	34	58	58	53	64	64	79	72	516

Individual crime offense counts do not sum to the incident total because some incidents have multiple offenses.

Violent Crime by Offense Type: 2023

	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
All Crime Incidents	54	64	79	90	97	83	101	100	93	111	56	72	1,000
Murder	0	3	0	4	1	2	1	0	2	2	0	1	16
Robbery Ind.	13	20	23	26	28	25	32	28	27	28	15	16	281
Robbery Bus.	4	8	9	6	11	6	4	11	4	12	3	9	87
Agg. Assault	38	33	48	57	57	52	65	62	60	69	38	46	625

Individual crime offense counts do not sum to the incident total because some incidents have multiple offenses.

Violent Crime by Offense Type: 2022

	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Total
All Crime Incidents	57	87	85	76	116	116	100	116	114	104	81	66	1,118
Murder	1	1	1	1	3	1	1	0	5	1	1	1	17
Robbery Ind.	20	21	23	19	33	42	31	28	37	28	23	9	314
Robbery Bus.	7	13	9	6	8	8	8	9	10	11	8	8	105
Agg. Assault	30	54	52	51	73	70	60	80	64	65	50	48	697

Individual crime offense counts do not sum to the incident total because some incidents have multiple offenses.

Violent Crime by Offense Type: 2021

	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Total
All Crime Incidents	85	75	100	99	99	101	137	121	131	110	75	80	1,213
Murder	2	0	0	1	3	3	1	3	1	2	0	2	18
Robbery Ind.	19	23	26	26	31	23	45	37	28	28	18	25	329
Robbery Bus.	12	8	9	6	8	8	11	15	15	6	8	11	117
Agg. Assault	52	45	66	66	59	69	81	68	90	74	50	42	762

Individual crime offense counts do not sum to the incident total because some incidents have multiple offenses.

Violent Crime by Offense Type: 2020

	Oct 20	Nov 20	Dec 20	Total
All Crime Incidents	124	116	70	310
Murder	2	3	3	8
Robbery Ind.	42	34	21	97
Robbery Bus.	17	15	12	44
Agg. Assault	66	66	37	169

Individual crime offense counts do not sum to the incident total because some incidents have multiple offenses.